

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-3 (Cancelled)

4. (Currently Amended) A mounting table, comprising:

a heating unit including a reflector plate made of an opaque quartz, and a quartz tube welded to a surface of the reflector plate, [[; and]]

a mounting table cover member installed to cover the reflector plate, a target object being mounted thereon,

wherein the mounting table cover member is made of a light absorbing material, and a carbon wire which generates heat when a current is applied thereto is disposed between the reflector plate and the mounting table cover member,

wherein the mounting table cover member has a circular lid shape and an inner surface of a sidewall of the mounting table cover member has a diameter greater than a diameter of the reflector plate so that the inner surface of the sidewall of the mounting table cover member is in contact with a side surface of the reflector plate to be circumscribed thereto.

5. (Original) The mounting table of claim 4, wherein the mounting table cover member is made of SiC.

6. (Currently Amended) A heat treatment apparatus, comprising:

a mounting table including a heating unit having a reflector plate made of an opaque quartz, and a quartz tube welded to a surface of the reflector plate; a mounting table cover member installed to cover the reflector plate, a target object being mounted thereon, wherein

the mounting table cover member is made of a light absorbing material, and a carbon wire which generates heat when a current is applied thereto is disposed between the reflector plate and the mounting table cover member;

a processing chamber accommodating therein the mounting table;

a gas supply unit for supplying a gas in the processing chamber; and

a vacuum pumping system for evacuating the processing chamber,

wherein the mounting table cover member has a circular lid shape and an inner surface of a sidewall of the mounting table cover member has a diameter greater than a diameter of the reflector plate so that the inner surface of the sidewall of the mounting table cover member is in contact with a side surface of the reflector plate to be circumscribed thereto.

7. (Previously Presented) The heat treatment apparatus of claim 6, wherein the quartz tube is bent.

8. (Previously Presented) The heat treatment apparatus of claim 6, wherein the quartz tube is divided and welded to a plurality of zones on the surface of the reflector plate.

9. (Currently Amended) A heat treatment apparatus, comprising:

a mounting table on which a target object is mounted;

a processing chamber accommodating therein the mounting table;

a gas supply unit for supplying a gas in the processing chamber;

a vacuum pumping system for evacuating the inside of the processing chamber;

a target object heating unit for heating the target object;

an inner vessel installed in the processing chamber;

a heating unit, installed between the inner vessel and an inner wall of the processing chamber, for heating the inner vessel,

wherein the lid-shaped inner vessel is made of a light absorbing material, and

the heating unit includes a reflector plate made of an opaque quartz, and a quartz tube welded to a surface of the reflector plate, and a carbon wire which generates heat when a current is applied thereto is disposed on a side of the reflector plate toward a position for the target object.

10. (Original) The heat treatment apparatus of claim 9, wherein the inner vessel is made of SiC.

11. (Previously Presented) The heat treatment apparatus of claim 9, wherein the target object heating unit is integrally embedded in the mounting table.

12. (Canceled)

13. (Previously Presented) The heat treatment apparatus of claim 9, wherein the quartz tube is divided and welded to a plurality of zones on the surface of the reflector plate.

14. (Canceled)

15. (Previously Presented) The mounting table of claim 4, wherein the quartz tube is divided and welded to a plurality of zones on the surface of the reflector plate.

16. (Previously Presented) The mounting table of claim 4, wherein a positioning projection is provided in an upper direction at a peripheral region of the reflector plate and positions the mounting table cover member which is inserted by the positioning projection.

17. (Previously Presented) The mounting table of claim 4, further comprising joint pins, wherein the quartz tube is jointed to the surface of the reflector plate by the joint pins.

18. (Previously Presented) The mounting table of claim 4, wherein a lower half portion of the quartz tube is opaque quartz, and an upper half portion of the quartz tube is transparent quartz.

19. (Previously Presented) The heat treatment apparatus of claim 9, wherein the reflector plate is attached to a ceiling plate of the processing chamber.

20. (Previously Presented) The heat treatment apparatus of claim 19, wherein an upper half portion of the quartz tube is opaque quartz, and a lower half portion is transparent quartz.

21. (Previously Presented) The heat treatment apparatus of claim 9, further comprising joint pins, wherein the quartz tube is jointed to the surface of the reflector plate by the joint pins.

22. (New) The heat treatment apparatus of claim 9, wherein the inner vessel is installed to cover a process space on the mounting table, the inner vessel being adapted to be heated to thereby accelerate process reactions and to align a gas flow of the processing gas.

23. (New) The mounting table of claim 4, wherein the carbon wire is inserted in the quartz tube disposed in a space surrounded by the reflector plate and the mounting table cover member and the diameter of the inner surface of the sidewall of the mounting table cover member is slightly greater than the diameter of the reflector plate so that the inner surface of the mounting table cover member is in close contact with the side surface of the reflector plate.

24. (New) The mounting table of claim 6, wherein the carbon wire is inserted in the quartz tube disposed in a space surrounded by the reflector plate and the mounting table cover member and the diameter of the inner surface of the sidewall of the mounting table cover member is slightly greater than the diameter of the reflector plate so that the inner surface of the mounting table cover member is in close contact with the side surface of the reflector plate.